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ABSTRACT

The purpose of this report is to gauge the short-term impact of assessment, counseling, and orientation services upon entering students in fall and spring semesters of the 1997-98 academic year. Specific research questions relate to the following topics: (1) demographic characteristics of the entering matriculants; (2) patterns of participation in the three designated matriculation services among entering matriculants; (3) student characteristics associated with student achievement; and (4) how student participation in assessment, counseling, and orientation impacts student performance during the initial semester of enrollment. The report includes findings on demographics, orientation services received, academic load, persistence and performance, as well as specific contrasts between matriculants who obtained services and those who did not. Resulting data indicates that participation in orientation, assessment, and counseling services positively affects persistence, as measured by the total units completed in the initial semester of attendance. Further evaluations of longer-term measures will be made in conjunction with local validation of the Student-Right-to-Know cohorts served by the college matriculation program. (AS)

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Research Report 98 - 14

Short-term Impact of Matriculation Services: 1997-98 Academic Year

September , 1998

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Research Report 98 - 14

Short-term Impact of Matriculation Services: 1997-98 Academic Year

Background:

Matriculation services are intended to provide support for entering and continuing students to assure their academic persistence and performance. Each California Community College District prepares and submits a Matriculation Plan outlining the specific services to be provided at the campus level, under the headings of the following components: Admissions, Orientation, Assessment, Counseling/Advisement, Follow-Up, Coordination and Training, Research and Evaluation, and Pre-Requisites, Co-Requisites and Advisories.

Mendocino College has defined the Matriculating student as one who:

a. is enrolled in six (6) or more units of credit;
b. has a declared academic or vocational degree/ certificate goal or academic plan, or is undeclared upon admission;
c. is admitted to Mendocino College as a first-time or first-time transfer student
d. has not completed an Associate or higher degree

Students who do not meet these criteria are exempt from the requirement to participate in at least one of the Matriculation services of assessment, counseling or orientation.

Assessment at Mendocino College is focused primarily upon qualification processes to enter English and Mathematics classes with sufficient demonstrated competency to assure a satisfactory academic outcome. These processes are regularly evaluated on the basis of on-going validation research. Counseling services are recommended to all students enrolled in six (6) or more units of credit, and are intended to assist the student to be accurately placed in classes, to develop a reasonable educational plan, and to make consistent progress toward meeting academic goals. Orientation services are intended to provide specific awareness and survival skills related to success at Mendocino College. Until 1997-98, orientation has been integrated with the Admissions Counseling processes, augmented by specific short-term Guidance courses emphasizing academic skills (e.g., test-taking, overcoming test anxiety, study skills, life planning). In the summer of 1997, a "Student Success" workshop and orientation activity was initiated experimentally for a small number of entering freshmen, and was shown to have a significant positive impact on performance and persistence for those who participated.

Research Objectives for this Report:

The purpose of this report is to assess the short-term impact of assessment, counseling and orientation services upon entering Matriculants in the Fall and Spring semesters of the 1997-98 academic year. Specifically, the research questions are:

1. What are the demographic characteristics of the entering Matriculants?
2. What are the patterns of participation in the three (3) designated Matriculation services among entering Matriculants?
3. What student characteristics are associated with student achievement?
4. How does student participation in assessment, counseling and orientation impact upon student performance during the initial semester of enrollment?

Findings:

Demographics:
Tables 1 through 3 present basic demographic characteristics of the combined 1997-98 Matriculation Cohort - those who met the initial criteria for a matriculating student in either the Fall or the Spring term of the most recent academic year. The patterns for gender, ethnicity, and enrollment status are comparable to those which have been found over the past four (4) academic years: about half and half male and female; about 25% minority; about 73% first-time enrollment in any college.

Orientation Services Received:
Table 4 shows the participation pattern for the three (3) matriculation services whose impact is being investigated in this research. The data indicate that over 60% of the matriculants participated in assessment, as reflected in the CPT Reading records for the two (2) semesters. Slightly over 50% participated in counseling services. Only 12.68% enrolled in one of the Guidance classes intended to be a part of the Orientation process. The sub-analysis of the combinations of assessment and counseling showed that there were many students who chose one to the exclusion of the other; while 62.93% were tested, only 40.98% were *both* tested and counseled. More than one (1) out of every five (5) new students developed class schedules on the basis of assessment recommendations alone, without counseling assistance; about one (1) out of every ten (10) new students saw a counselor, but took no reading assessment test. Perhaps most significant as an unreached population was the 27.48% of the cohort who participated in neither testing nor counseling, but enrolled in educational programs for their initial semester of college by self-selecting a schedule of classes. In the event of registration blocking for English and Mathematics course, these 169 student would effectively have been from enrolling in either of those disciplines above the Basic Skills level.

A second sub-analysis indicates that just under half of the cohort did not take advantage of the counseling services of the College, as indicated by recorded counselor visits. Of those who did see a counselor, 73% recorded only one (1) visit. Within the combined cohort are included 400 Fall matriculants, of whom it might have been expected that more than 64 would have recorded a second counselor visit to plan for the Spring semester of college work.

Academic Load, Persistence and Performance:
The purpose of this research is to evaluate the impact of selected matriculation services upon student persistence and performance. Previous Matriculation research at Mendocino College has shown that there are predictable features associated with student performance, as reflected in initial term Grade Point Average (GPA). The patterns of association are confirmed in this cohort. Table 5 shows that student performance is significantly associated with gender (Females significantly outpace Males), Ethnicity (Non-minority student outpace Minority students), and measured reading ability (students with higher CPT Reading scores attain higher GPAs than those with lower scores). One useful evaluative question is whether participation in matriculation services improves the academic performance (GPA) of Males or Minority students.

Table 6 presents the contrasts among all students in the cohort who did or did not participate in the selected services. The three (3) specific sets of questions answered in Table 6 are:

1. Did participation in Testing have an impact on the units attempted (load), units completed (persistence) or first semester GPA (performance) of the students served?
2. Did participation in Counseling have an impact on the units attempted (load), units completed (persistence) or first semester GPA (performance) of the students served?
3. Did participation in a selected Guidance class have an impact on the units attempted (load), units completed (persistence) or first semester GPA (performance) of the students served?

Table 1

Sex: 1997-98 Matric Cohort

	N	%
Male	303	49.27%
Female	312	50.73%
Total	615	100.00%

Table 2

Racial Category: 1997-1998 Matric Cohort

White, Non Min	461	74.96%
Asian	8	1.30%
Af. American	25	4.07%
Hispanic	66	10.73%
Nat American	46	7.48%
Other	9	1.46%
Total	615	100.00%

Table 3

Enrollment Status: 1997-98 Matric Cohort

First time	444	72.20%
First transfer	171	27.80%
Total	615	100.00%

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Table 4

Matric Services Received: 1997-98 Matric Cohort

	N	%
Assessment	387	62.93%
Counseling	311	50.57%
Orient. Class	78	12.68%
Total Cohort	615	100.00%
Sub-Analysis		
Tested, Counseled	252	40.98%
Tested, Not Counseled	135	21.95%
Counseled, Not Tested	59	9.59%
Not Tested, Not Counseled	169	27.48%
Total:	615	100.00%
Counselor Visits Rercorded		
None	304	49.43%
1	227	36.91%
2	64	10.41%
3	18	2.93%
4	2	0.33%
Total:	615	100.00%

Table 5

Factors Affecting GPA: 1997-98 Matric Cohort

Gender:	**N**	**Mean**	**Std. Dev.**
M	303	2.299	1.239
F	312	2.534	1.249
Diff:		0.235	
p. <		0.019	
Race:			
Non-Minor	461	2.501	1.237
Minority	154	2.171	1.255
Diff:		-0.330	
p. <		0.005	
CPT Reading Score:	387		
Correlation (R)	0.245		
F-Value	24.48		
p. <	0.0001		

In each case, the students who took advantage of the specific Matriculation service out-performed those who did not; however, not every difference was statistically significant. In the case of Orientation services, separate analyses were conducted for each of four (4) Guidance courses, and only GDN 123 - Test Anxiety and Test-taking Skills - was found to have a significant impact on student load, persistence or performance.

The data indicate that, across the board, participation in assessment, counseling or the Guidance class significantly impacted student persistence as measured by units completed at the end of the initial semester of enrollment. In addition, it was found that participation in counseling services was associated with attempting a higher academic load (Units Attempted), and participation in GDN 123 significantly impacted student performance (first semester GPA).

Specific Contrasts:

For purposes of data analysis, those students who participated in *all three* (3) of the matriculation services under investigation (N=49) were identified for contrast against those who participated in *none* of the matriculation services (N=168). Comparisons were developed by Gender and by Ethnicity in order to evaluate the specific impact of full participation as against no participation in matriculation services.

As indicated in Table 7, there were affirmative impacts on student academic load and persistence, but not on student performance. The most significant impacts were found in Minority and Male student persistence.

Summary

This research report focused upon the short-term impact of selected matriculation services - assessment, counseling and orientation - upon student academic load, persistence and performance among first-time matriculating students at Mendocino College in the 1997-98 academic year.

The data indicate that participation in any one of the services positively affects persistence, as measured by the total units completed in the initial semester of attendance. Students who completed GDN 123 - Test Anxiety and Test-taking Skills, gained a statistically significant advantage over their peers in first term GPA (academic performance) as well as in persistence.

Specific comparisons were drawn between those who were served by all three (3) matriculation services as contrasted with none. It was found that Male and Minority students, who traditionally show lower academic loads, persistence and performance, were significantly improved on persistence; males showed additional gains in academic load.

Matriculation services offered at Mendocino College have a demonstrable, positive impact on matriculating students enrolled in their initial semester at Mendocino College. Further evaluations of longer-term measures will be made in conjunction with local validation of the Student Right to Know cohorts served by the College matriculation program.

Table 6

Selected First Term Performance Statistics: 1997-98 Matric Cohort

	N	Mean UA	Std. Dev	Mean UC	Std. Dev	Mean GPA	Std. Dev
Assessment:							
Tested	387	10.022	3.554	8.982	4.585	2.423	1.192
Not Tested	228	9.566	3.781	8.112	4.89	2.404	1.340
Diff:		0.456		0.870		0.019	
p. <		NS		0.027		NS	
Counselling:							
Counseled	311	10.320	3.612	9.464	4.614	2.478	1.181
Not Counseled	304	9.375	3.620	7.816	4.676	2.357	1.313
Diff:		0.945		1.668		0.121	
p.<		0.001		0.0001		NS	
Orientation:							
Took GDN 123	19	11.105	2.453	11.447	2.134	3.1J1	0.531
No Class	596	9.813	3.670	8.570	4.748	2.395	1.258
Diff:		1.292		2.877		0.736	
p. <		NS		0.009		0.05	

Table 7

Selected First Term Performance Statistics: 1997-98 Matric Cohort
Counseled, Tested, Oriented (CTO) vs. No Services Received

	N	Mean UA	Std. Dev	Mean UC	Std. Dev	Mean GPA	Std. Dev
Race: White, Non-Minority							
CTO	40	10.963	3.020	10.600	3.742	2.774	0.947
None	133	9.256	3.387	7.902	4.664	2.469	1.349
Diff:		1.707		2.698		0.305	
p. <		0.008		0.001		NS	
Race: Minority							
CTO	9	9.778	4.265	11.000	2.431	0.694	
None	35	7.586	3.260	5.271	1.773	1.392	
Diff:		2.192		5.729		-0.698	
p. <		NS		0.001		NS	
Gender: Male							
CTO	17	11.647	3.490	12.059	3.092	2.861	0.807
None	96	9.125	3.868	7.658	4.667	2.293	1.319
Diff:		2.522		4.401		0.568	
p. <		0.016		0.0003		NS	
Gender: Female							
CTO	32	10.266	3.062	9.938	3.993	2.632	0.962
None	73	8.534	3.350	6.959	4.748	2.364	1.470
Diff:		1.732		2.979		0.268	
p. <		0.014		0.003		NS	

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